

Flight Duty Medical Exam

Introduction

Conducting flight duty medical exams (FDME) for aviation personnel is one of the most important missions for flight providers. Flight providers must know the administrative components of the FDME, how to conduct all of the tests and how to process the FDME after completion.

After completing this lesson...

You will be able to:

- Perform complete and accurate flight physicals.
- Identify the proponent for aeromedical policy in the US Army Aeromedical Policy and Standards
- Differentiate between the two basic types of FDME (initial and annual)
- Define birth month window and explain the purpose of birth month realignment
- Define FDME extension
- Demonstrate or explain how to properly administer these FDME tests: Valsalva, Reading Aloud Test, Anthropometrics
- Identify unsatisfactory Aeronautical Adaptability traits
- Demonstrate or explain how to properly administer the optometric screening tests on an FDME

You will be able to discuss:

- The purpose of the FDME and the role / responsibilities of the flight surgeon and aircrew member in completing the FDME
- The four classes of aeromedical military standards
- The aeromedical standards that apply to civilian pilots and air traffic controllers that work for the US Army
- The review and disposition process and the flight surgeon's responsibilities regarding routing and tracking of FDMEs
- FDME requirements when on deployment and identify who is the sole person who can suspend the requirement for an FDME

Background

Purpose of the Flight Duty Medical Exam (FDME):

- Periodic screening exam
- Occupational and Preventive Medicine focus

Note: Individual aircrew members are responsible for maintaining a current:

- FDME
- Upslip, DA Form 4186

- Assess ability to perform a job
- Promote wellness
- Responsibilities

What is the proponent for US Army aeromedical policy and standards?

- US Army Aeromedical Activity (USAAMA).
- USAAMA's parent organization is the US Army Aeromedical Center (USAAMC), Ft. Rucker.

FDME Types

What are the two basic types of FDME?

Initial:

Annual:

Accession purposes

Provides annual aeromedical certification, retention purposes.

Valid for 18 months from the date of the examination.

Valid for 12 months, synchronized with the birth month

An initial Class 1 is the same as an initial Class 2, 3, or 4 PLUS a cycloplegic refraction and anthropometric measurements

Comprehensive FDME performed every 5 years until age 50 and then annually.

Scheduled at age: 20, 25, 30, 35, 40, 45, and 50.

Class 2, 3, or 4 FDME are all exactly the same!

Interim FDME now called the Interim Flight Duty Health Screen-- a "health screening" vs. a physical exam. Performed annually when a comprehensive FDME is not required

All annual FDMEs except DAC (Department of the Army) ATCs, contain the SAME information.

A comprehensive FDME for a pilot is the same as that for a crew chief

An interim /abbreviated Health Screen for a flight medic is the same as that for an Army ATC

How are FDMEs recorded?

On DD Form 2807 and 2808

Performed IAW AR 40-501, Chap 8 and Aeromedical Technical Bulletin (ATB) 2

Interim Flight Duty Health Screens are recorded on DA Form 4497R Performed IAW ATB 2

Military Standards

Classes of aeromedical military standards:

- Class 1 – pilot applicant
- Class 2 – FS, APA, and trained pilots
- Class 3 – crewmembers: crew chiefs, flight medics, stewards, aerial gunners, etc.
- Class 4 – military Air Traffic Control (ATC) and beginning the summer 2010, select UAS (unmanned Unmanned Aerial Systems (UAS) Operators

Aeromedical Standards Class 1 thru 4 Found in AR 40-501, Chapter 4 and in the Aeromedical Policy Letters (APL) issued by USAAMA

Why have different classes of aeromedical military standards?

- An FDME is an FDME.
- FDME “Class” refers the subject’s occupation and therefore determines which aeromedical standards are applied Aeromedical Standards.
- With a few minor exceptions, we perform the FDME (or the Interim Health Screening) the same way.
- A flight physical for a pilot is the same as the flight physical for a crew chief.
- We collect the same information on everyone during the physical exam process, but interpret that information differently based on occupational requirements.

Civilian Standards

What aeromedical standards apply to civilian pilots and air traffic controllers that work for the US Army?

Civilian pilots:

- Must meet the same standards as military pilots, Class 2 retention standards examination performed per guidance in ATB 2

Civilian Air Traffic Controllers (ATC):

- Do NOT have to meet Class 4 Military ATC standards.
- Must meet Office of Personnel Management (OPM) standards for GS-2152: ATC Series
- NOTE: A military flight surgeon will perform the annual examination per guidance in ATB 2 but applies the Office of Personnel Management (OPM) standards for fitness

Birth Month Window

What is the birth month window?

- FDMEs and Annual Health Screening are synchronized with the birth month.
- The “window” includes the three-month period preceding the end of the birth month,” in other words, the birth month and the two preceding months.
- Exams/screenings must be finished by the end of the birth month.
- Example: a pilot born 19 June should have his/her FDME between 1 April and 30 June.
- All exams/screenings completed in this “window” are considered to have occurred during the birth month and are valid through the end of the following birth month.

Birth month realignment:

- Because flight school candidates apply for flight school at all times of the year, the actual conduct of the FDME may not occur on the candidate’s birth month.
- The expiration date of that initial exam must occur during his birth month, hence the time of validity is based on when the FDME was executed and when the birth month actually is.
- Hence, the FDME validity can be as long as 18 months and as short as 6 months.

FDME Deadlines

Key FDME deadlines?

- All annual FDMEs must be completed within the birth month window. Exceptions for deployments or other extenuating circumstances must be requested through the Director, USAAMA
- All periodic FDMEs are valid until the last day of the birth month in the following year.
- The period of validity for all FDMEs is 18 months for an initial and generally 12 months for an annual. The exception to the rule is birth month realignment, in which case an annual may be extended and valid for up to 18 months.
- An extension for one calendar month beyond the birth month is possible. No more than

Can aircrew get an FDME extension?

- Yes, if the examination cannot be completed within the birth month window.
- Only one extension may be granted by the flight surgeon.
- The extension will NOT exceed one calendar month
- Must be requested no later than the end of the birth month

one month, on a once a year basis, is allowed.



Conducting FDME

Conducting a proper FDME:

The FDME is typically done in two parts:

History

- Personal information
- Past medical history
- Vital signs/Arthropometrics
- Vision testing
- Audiology
- ECG (Only required on initial FDMEs and then annually after age 40 as part of Cardiovascular screening program.)
- Dental
- Pap smear (Not required on Initial FDMEs)
- Lab

Physical Exam

- Part 2 Performed just like a standard Army quadrennial physical exam per AR 40-501, Chapter 8 plus a few aviation-specific items described in the ATBs
- Anthropometrics
- Reading Aloud Test
- Valsalva
- Thorough Vision Screening
- Aeromedical “Special Tests”
- The Valsalva Maneuver
- Reading Aloud Test
- Anthropometrics
- Aeronautical Adaptability

Valsalva Maneuver

- Required of all aircrew except ATC and UAS on all comprehensive FDMEs
- Gross evaluation of Eustachian Tube Function

Reading Aloud Test

- A phonetic exercise
- Subjective evaluation

Try to assess clear, safe, effective communication:

- Stutter / stammer
- Learning disability

- Excessively introverted, indecisive, careless
- Marginal English skills

Anthropometrics

How do we conduct the Anthropometrics test?

Record in centimeters, to the nearest tenth:

1. Crotch Height (Leg Length)

- The subject must stand completely erect against a wall, heels together, weight evenly distributed, and knees locked.
- The measurement is taken parallel with the wall from the floor to a point where light contact is made with the perineum in the midline.

2. Total Arm Reach

- The subject must stand erect against a wall, arms outstretched at a 90-degree angle and parallel with the wall.
- The elbows must be locked.
- The fingertips of one hand must be in contact with the adjacent wall in the corner of the room.
- The horizontal distance between fingertips is recorded.

3. Sitting Height

- The subject must sit on a hard, flat surface, facing forward, feet flat on the floor, with buttocks, shoulders, and back of head against the wall.
- Using a right angle on the head, the distance between the sitting surface and the top of the head is recorded in centimeters.

Aeronautical Adaptability

What are unsatisfactory Aeronautical Adaptability traits?

- Not a psychiatric diagnosis
- Covers many socio-behavioral characteristics that may have a negative impact on the safety of

Examples of unsatisfactory conditions:

- Concealing / lying about medical history
- Unhealthy attitude about flying
- Undesirable personality traits
- Persistent psychosomatic traits
- Antisocial behavior

flight

- Unresolved interpersonal problems
- “Kitchen sink”—careless and poor motivation

Optometric Screening Test

What optometric screening tests are part of the FDME?

- Cycloplegic Refraction
- Binocular Depth Perception
- Color Vision
- Visual Acuity, Near
- Visual Acuity, Distant
- Field of Vision
- Oculo-Motility

FDME Grading Scale

What is the grading scale for FDMEs?

- **Medically Qualified:** Meets aeromedical standards, Fit for Flying Duties (FFD) IAW AR 40-501 and the APLs
- **Medically Disqualified:** Failure to meet aeromedical standards, may perform Duties Not Involving Flight (DNIF)
- **Medically Disqualified Waiver Granted:** Despite failure to meet a given medical standard, the crewmember has received official dispensation (a waiver) from the waiver authority.

FDME Disposition

What is the review and disposition process for FDMEs?

- Class 1, 2, and 4 FDMEs are all submitted to USAAMA for central review and disposition
- Although most Class 3 FDMEs may still be reviewed by the local FS

Exception to the Rule!

Class 3 FDMEs Requiring USAAMA Review:

- Alcohol/drug abuse or dependence: requires PERSCOM or National Guard Bureau waiver
- Central nervous system dysbarism
- Coronary artery disease
- Positive HIV testing
- Any other condition for which the local FS or aviation commander requests a

who provides aeromedical disposition, all class 3s will eventually be required to be submitted electronically for central review. Electronic submission prevents against time consuming loss of paperwork as well as loss to follow up clinically.

consultation with the U.S. Army
Aeromedical Consultation Service

Routing and Tracking

Route and tracking FDMEs:

- A copy of the FDME must be kept on file at the facility for 2 years
- Make two copies of the FDME
- A file copy for the clinic as required above
- A second copy placed in the HREC until the original returns from Ft. Rucker (USAAMA) review
- MUST keep a log and “close the loop” on all FDMEs

Deployments

What are FDME requirements when on deployment?

- FDME requirement can only be suspended by the Office of the Surgeon General (OTSG)
- Do as much as practical
- Explain the extenuating circumstances
- Complete the FDME requirements within 90 days of return from the deployment
- Realign with birth month if necessary